Controlling Taste and Odor Concerns

Water treatment facilities commonly receive taste and odor complaints in the summer and early fall.

Many factors affect the taste and odor of water this time of year. Warm river temperatures, low river flow and the amount of rainfall combine to produce a type of algae that produces compounds known as geosmin and 2-methyl isoborneol or MIB. These compounds do not pose any health threats, but they do cause a taste and odor some describe as musty and earthy. In addition to conventional treatment, MWS uses powdered activated carbon in the treatment process to battle taste and odor issues.

Humans can detect MIB at an extremely low level (3 - 6 parts per trillion). Therefore, each spring, a five person Taste and Odor Panel is formed. The panel gathers information to improve the detection and elimination of taste and odor. Each panel member smells three samples from each water plant (raw, settled, and finished) and any river samples that may have been collected. Next they describe the odor of each sample and rate it from 0-10 according to the intensity of that odor.

Water samples are also analyzed in the laboratory using a Solid Phase Microextraction technique utilizing Gas Chromatography/Mass Spectrometry (GC/MS) technology. This analysis is able to detect the presence and concentration of these compounds at a much lower level than was possible in the past (2 parts per trillion).

This process of adding carbon to the water is part of Metro Water Services commitment to ensure the delivery of safe, clean, and reliable drinking water.

**1 part per trillion is equivalent to about thirty seconds out of every million years.*